

OPEN MEETING AGENDA ITEM

From: Abhay Padgaonkar
 Date: October 4, 2021
 Docket: APS Rate Case (E-01345A-19-0236)
 Re: False Choice Between SCRs and Reliability

Dear Commissioners:

On Monday, we heard APS offer an explanation that SCRs were necessary for APS to assure reliability. In other words, APS had no choice but to SCRs because without them reliability would have suffered. Sierra Club has already provided a strong evidence for the imprudence of SCR investment and cautioned the Commission against falling prey to the "used and useful" fallacy. I will share data for actual peak load vs. total resources available at peak each year from 2010-2020 sourced from APS's own reporting to investors.¹

You may recall my observation based on an analysis of actual peak load vs. total resources available from Pinnacle West Statistical Reports that APS was maintained **52%** higher reserve, i.e., 22.8% reserve margin vs. the required 15% reserve margin over 2010-2020 — amounting to an average of more than 550 MW excess capacity over and above the 15% reserve margin.² Here is the underlying data:

LOADS AND RESOURCES AT PEAK													
ARIZONA PUBLIC SERVICE COMPANY	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Total	Average
PEAK LOAD (kW)													
Actual	7,659,770	7,115,449	7,320,000	7,363,000	7,051,000	7,031,000	7,006,500	6,926,600	7,206,600	7,087,000	6,935,900	78,702,819	7,154,802
Total Resources Available at Peak	9,094,190	8,241,160	8,643,000	8,438,000	9,192,000	9,250,000	9,259,200	8,398,000	8,864,000	8,577,000	8,682,000	96,638,550	8,785,323
RESERVE MARGIN (kW)	1,434,420	1,125,711	1,323,000	1,075,000	2,141,000	2,219,000	2,252,700	1,471,400	1,657,400	1,490,000	1,746,100	17,935,731	1,630,521
RESERVE MARGIN %	18.7%	15.8%	18.1%	14.6%	30.4%	31.6%	32.2%	21.2%	23.0%	21.0%	25.2%	22.8%	22.8%
EXCESS OVER 15% RESERVE MARGIN (kW)	285,455	58,394	225,000	(29,450)	1,083,350	1,164,350	1,201,725	432,410	576,410	426,950	705,715	6,130,308	557,301

The Reserve Margin is defined as the actual peak load divided by total resources available at peak (generating capacity + PPA) and 'Excess Over 15% Reserve Margin' (in red) is simply the portion that exceeds the required 15% margin that is a necessary cushion for reliability.

You will notice that:

- 1) Notwithstanding APS's repeated chants of growth, the peak load has been relatively flat throughout, except for some minor blips above and below the average of **7,154 MW** from 2010-2020.
- 2) APS had so much reserve capacity throughout that reliability had never been a real concern at any time. Yes, even in the brutal summer of 2020, APS not only had the 15% reserve margin covered, but also had **285 MW over and above the 15% reserve margin**. Every year except one in 2017, APS far exceeded the 15% reserve margin.
- 3) Of particular concern is the period from 2014-2016 when APS was justifying its purchase of Units 4 and 5, claiming 3.25% compound annual growth rate, and negotiating a settlement with the EPA over unlawful modifications to 4CPP, the 'Excess Over 15% Reserve Margin' was consistently more than 1,000 MW. **In each of those years, APS had a 15%+ cushion on top of the 15% cushion.** In 2014, APS had 1,200 MW excess capacity over and above the 15% reserve margin.
- 4) From 2010-2020, the 'Excess Over 15% Reserve Margin' adds up to 6,130 MW. That is an enormously excessive reserve, which was entirely unnecessary because it exceeded the 15% reserve margin by 52%, i.e., **22.8%** reserve margin vs. the required **15%** reserve margin over 2010-2020.

This recklessly excessive capital accumulation³ — aided by APS's purchase of Units 4 and 5 and imprudent doubling down on SCRs — shows that the false choice APS has presented between SCR investment and reliability has possibly cost ratepayers billions with no reliability benefits because it was over the 15% reserve margin.

¹ Pinnacle West Annual Statistical Reports at: <http://www.pinnaclewest.com/investors/reports/annual-statistical-report/default.aspx>

² "UPDATED: Recommendations for and Additions to the Proposed Amendments", P.2 at: <https://docket.images.azcc.gov/E000016000.pdf#page=2>

³ The Averch-Johnson effect is the tendency of regulated companies to **engage in excessive amounts of capital accumulation** in order to expand the volume of their profits. (https://en.wikipedia.org/wiki/Averch%E2%80%93Johnson_effect)